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INDEX OF TEXTBOOK PRICES.

BY- GOLDSTEIN, HAROLD AND OTHERS
ILLINOIS UNIV., URBANA, GRAD SCH. OF LIB. SCIENCE

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THE RISE IN COSTS OF TEXTBOOKS AND RELATED EDUCATIONAL MATERIALS WAS STUDIED TO PROVIDE INFORMATION WHICH WOULD ASSIST EDUCATION AUTHORITIES IN THE PREPARATION OF INSTITUTIONAL BUDGETS. THE STUDY WAS STRUCTURED INTO (1) ELEMENTARY-SECONDARY SCHOOL TEXTS AND RELATED MATERIALS AND (2) COLLEGE LEVEL TEXTS AND RELATED MATERIALS. DATA WERE OBTAINED FROM THE GUIDE "TEXTBOOKS IN PRINT" AND ARRANGED BY (1) THE SUBJECT DIVISIONS USED IN THE GUIDE, (2) THE GRADE LEVEL, AND (3) THE FORM OF MATERIAL. THE THREE GROUPINGS WERE THEN CODED AND KEYPUNCHED FOR TABULATION. ANALYSES INDICATED WHILE SCHOOL TEXTBOOKS AT ALL LEVELS HAD RISEN IN COST, THE RISE WAS LESS THAN THAT REVEALED IN THE STUDY OF GENERAL PUBLICATIONS WHICH APPEARED IN "THE COST OF LIBRARY MATERIALS," 1961. ALSO, THE FIELDS OF SCIENCE, SOCIAL SCIENCE, MATHEMATICS, AND APPLIED SCIENCE REFLECTED THE HIGHEST PRICE RISE. (RS)

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# INDEX OF TEXTBOOK PRICES

**Cooperative Research Project No. S-122**

**Harold Goldstein, Project Director**
**Barbara McKelvey, Research Assistant**
**Mary Else, Research Assistant**

**Graduate School of Library Science**
**University of Illinois**
**Urbana, Illinois**

**1965**

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## The problem

The rising cost of materials useful and necessary to education has concerned all those responsible for the operation of educational agencies. It has been shown that costs of equipment, construction, personnel, and other components of the educational machinery have risen steadily during the past decade. No studies to date have been conducted on the rise in costs of textbooks and related materials.

Education authorities have need of such knowledge for the adequate preparation of their institutional budgets, in the expenditures of funds for classroom and other activities, and for public information purposes. Public schools, colleges, and universities deal with textbook and related materials in several ways, often involving large collections of such items for a variety of purposes. The costs of the texts are a large element in the provision of the proper and necessary material for all levels of education. Whatever the distribution pattern may be for texts -- student purchase, loan, rental, other financial or administrative patterns - it is important to know something of the level of costs, and, if possible, something of the trend of textbook prices.

Recently, an index, Cost of Library Materials by Frank L. Schick and William H. Kurth[1] has provided cost figures for books, periodicals, and serials published in the United States. This index does not include textbooks and their related materials (teachers editions, workbooks, laboratory manuals). While there is obviously some relation between the costs of all printed materials and the costs of textbooks, no presently available data presents a picture of these prices, over a period of time, for the various levels of education.

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(1) U. S. Office of Education. October, 1961.

## The objectives of the study

This study was directed toward the production of a single instrument: an index of textbook prices. The index when derived was conceived to further these objectives:

1. To provide educators, librarians, and others with up-to-date, complete, and reliable information about the costs of an important element of educational expenditures;
2. To establish the index so that it conforms to a base year, between 1957-59, consistent with the previously-cited index, Cost of Library Materials, and with other indices of costs which have taken this base year as their reference point.
3. To provide, through the index data, a device which might be used for predicting future prices of basic educational materials.

## Related research

No generally available tool, such as an index of textbook costs, has been compiled to date. Fragmentary groups of cost figures for textbooks are available, but in the main these are only annual production costs, annual sales totals, or average item costs. There is no compilation of prices readily available by subject areas, or for the different levels of education. Further, such compilations as are easily found do not indicate to what extent they are based on the fullest possible sources of information about the textbook field only.

The Bowker Annual reports regularly statistics compiled by the American Textbook Publishers Institute. This listing gives sales totals (in dollars) for different levels of textbooks and standardized tests, figures are available also

for unit textbook sales by school level.(2)

Similar sales figures are given yearly in the Publishers Weekly and Retail Bookseller as part of an annual survey of the publishing industry.

## Procedure

The general design of this study was framed around the selection of cost data for each published title which could be positively identified as a textbook. The study was structured into two main divisions: 1) elementary - secondary school texts and related materials; 2) college level texts and their related materials.

The major source of data for the school texts was the guide, Textbooks in Print.(3) A guide was obtained for each of the years included in the analysis of data: 1958 (base year), 1961, and 1963. Data from these guides were arranged in three groups: by the ten subject divisions used in the guide, by grade level, and by form of material.

These three groupings provided basic data which were coded, then key-punched for later tabulation on computers.

The original limits set for the index consisted of two points - 1958, base year; 1963, current prices. It was found that a third point in the time spacing between the original limits would be desirable; an extension of time was granted to the project to accommodate this additional data compilation.

For the college level material, no suitable tool was readily available. Existing lists - individual publisher, trade bibliographies, special ones - were either incomplete as to date or subject, or were deemed unrepresentative of the entire universe of college textbook titles.

(2) Bowker Annual... New York, R. R. Bowker, 1965. pp. 68-74.
(3) Textbooks in Print. New York, R. R. Bowker. various paging.

Finally, a trade tool was found which represented the best compromise between the total output of college titles and a workable list of such items.[4] An estimate of the total titles contained in this device was 10,000 items; final coding totals indicated that 9,181 items were actually listed. This total covers the three elements of the time scale: 1958, base year; 1961; 1964, current year. It was decided to use this year even though the latest available data for school texts was found to be 1963.

Data from the college list were coded into six subject areas, form of material, number of publishers, and number of titles per publisher per year.

## Date source problems

A. School level textbooks and related materials:

While the school text list, Textbooks in Print, was obtained easily, problems arise immediately with its use as a master list:

1. Problems of format (narrow margins, small type and spaces) made it necessary to enlarge each page for ease of handling during the coding process. Code data were written directly on each line opposite the title on the enlarged sheets.
2. It was found necessary to verify many titles through other sources (Books In Print, Standard Catalog for High School Libraries, Standard Catalog) to establish definitely that the questionable item was a textbook. Many items were examined directly to ascertain their status. This cross-checking process was most time-consuming; the project staff felt, however, that no item should be coded for inclusion in the data bank until it was so verified.

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(4) College Text Buyback Book. Lincoln, Nebraska Book Company, 1964.

A residual number of titles, approximately ten percent of the total in each guide used, could not be verified in any of the sources available at this institution.

3. Some difficulty was found in establishing the publication date, a necessary step to eliminate duplication of editions, reprints, etc. Where doubt existed as to the original publication date, the earlier date was used as shown in the guide for each of the three year periods.

4. Since the master guide is based on data furnished by publishers, subject classification entries appeared somewhat arbitrary in that title inclusions in each subject area were subject to publisher preference or idea. The ten areas selected for use in the final data bank represent the ideas of the project staff as to generality, suitability, and common usage.

5. Items selected for inclusion as related materials in the master data compilation were those which were clearly defined as such, or were verified as such, or were so labeled by the research staff as properly fitting the classification of teachers edition, workbook, or manual.

B. College textbooks and related materials:

1. The search for a suitable basic list proved to be almost fruitless, until a suggestion made by a publisher unearthed the tool used. This list, most cooperatively provided for use in this project, proved to have a suitable format.

2. Unfortunatel y, the list was not divided into subject categories. Therefore six major subject areas were devised to include the many thousands of titles listed:

SUBJECTS:

1. Business
   - Accounting
   - Advertising
   - Business Administration (Business Law)
   - Business Skills (Secy, Typing, Shorthand, etc.)
   - Management
   - Marketing
   - Personnel Administration
   - Insurance
   - Communications

2. HUMANITIES
   - Art - Architecture, Design, Print Making
   - History - Cartography
   - Classical Studies
   - Philosophy, Logic, Ethics
   - Religion
   - Music

3. LANGUAGES AND LITERATURE
   - Speech; Reporting; Folktales
   - Drama
   - Journalism

4. SCIENCES
   - Math
   - Biological
     - Botany
     - Zoology
     - Biology
     - Physiology
     - Medicine; Pharmacology
   - Physical
     - Chemistry
     - Physics
     - Geology
     - Astronomy

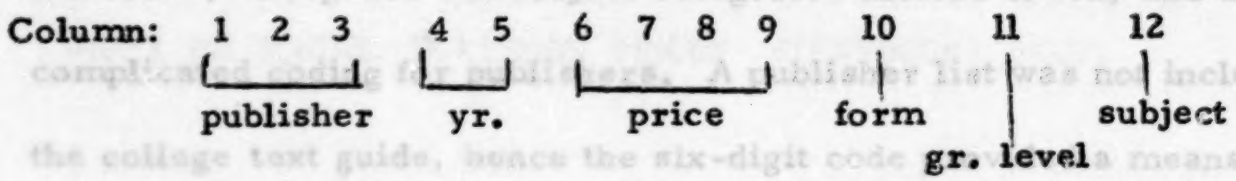
5. APPLIED SCIENCES
   - Engineering; Broadcasting
   - Agriculture; Forestry
   - Home Economics

6. SOCIAL SCIENCES
   - Education
   - Psychology
   - Social Sciences
   - Political Science
   - Economics
   - Anthropology
   - Law
   - Geography
   - Library Science

3. Titles were verified, as they had been for the school text list, whenever there was doubt as to its inclusion in the textbook list.

All relevant sources and bibliograpnies were consulted in the verification process.

The codes prepared for the two levels of textbook data were simplified numeric ones. The code for the school textbook data consisted of twelve columns:




Publisher: the list of publishers in the guide (Textbooks in Print) was numbered in its alphabetical arrangement.

Year: two columns for the last two digets, '58, '61, '63.

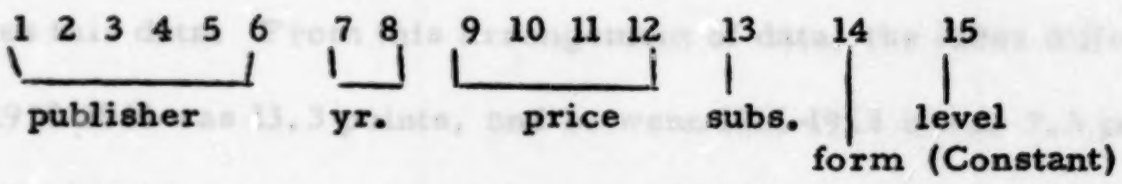
Price: All prices were used as given in the guide: ex. $3.95 - 0395

Form: Titles were coded as textbooks, teachers editions, manuals

Grade Level: Five categories were used: elementary, junior high, senior high, junior-senior high, and college. The last two categories were discarded from tabulation when the computer runs indicated that their totals were too small to be useful.

Subject: Ten subjects were used, as listed in the guide: Social Science, Art and Music, Business, Health and Physical Education, Home Economics, and Vocational Education, Language Arts, Languages,* Math, Religious Education, and Science.

The code for college textbooks was similar, using fifteen digits:




* Languages indicates foreign language material.

The definitions applied to this code are the same as those used for school textbooks, except for six subject categories instead of ten, and a more complicated coding for publishers. A publisher list was not included in the college text guide, hence the six-digit code provided a means for identifying each publisher. All data, were keypunched on IBM cards; totals and averages were run on the IBM 7094 computer. The Statistical Service Unit, University of Illinois, provided the necessary assistance to convert the punched cards to computer program cards.

## Analysis of the data

### 1. School textbooks and related materials

The rise in the price, hence the index point, of school materials is a clearly indicated one: Between 1958 and 1961, the index rose 11.5 points; between 1961 and 1963, it rose another 3.5 points; the overall rise over five years was 15 points. In dollar costs, these figures may be translated thus: 1958, $2.60 average price; 1961, $2.90; 1963, $2.99. The dollar differential for the period surveyed amounts to $0.33 for text books only. Figure 1 illustrates this rise.

The rise in prices of textbooks for schools is reflected in another index derived by averaging the prices of texts in ten subject classes. Figure 2 gives this data. From this arrangement of data, the index differential between 1958-1961 was 13.3 points, and between 1961-1963 it was 7.5 points. That is, the index rose from the base year, 1958 (100) to 113.3 in 1961, and to 120.8 in 1963. Table 1 indicates the dollar breakdown and corresponding index values for this data:

Figure 1

INDEX OF SCHOOL TEXTBOOK PRICES (TEXTBOOKS ONLY)

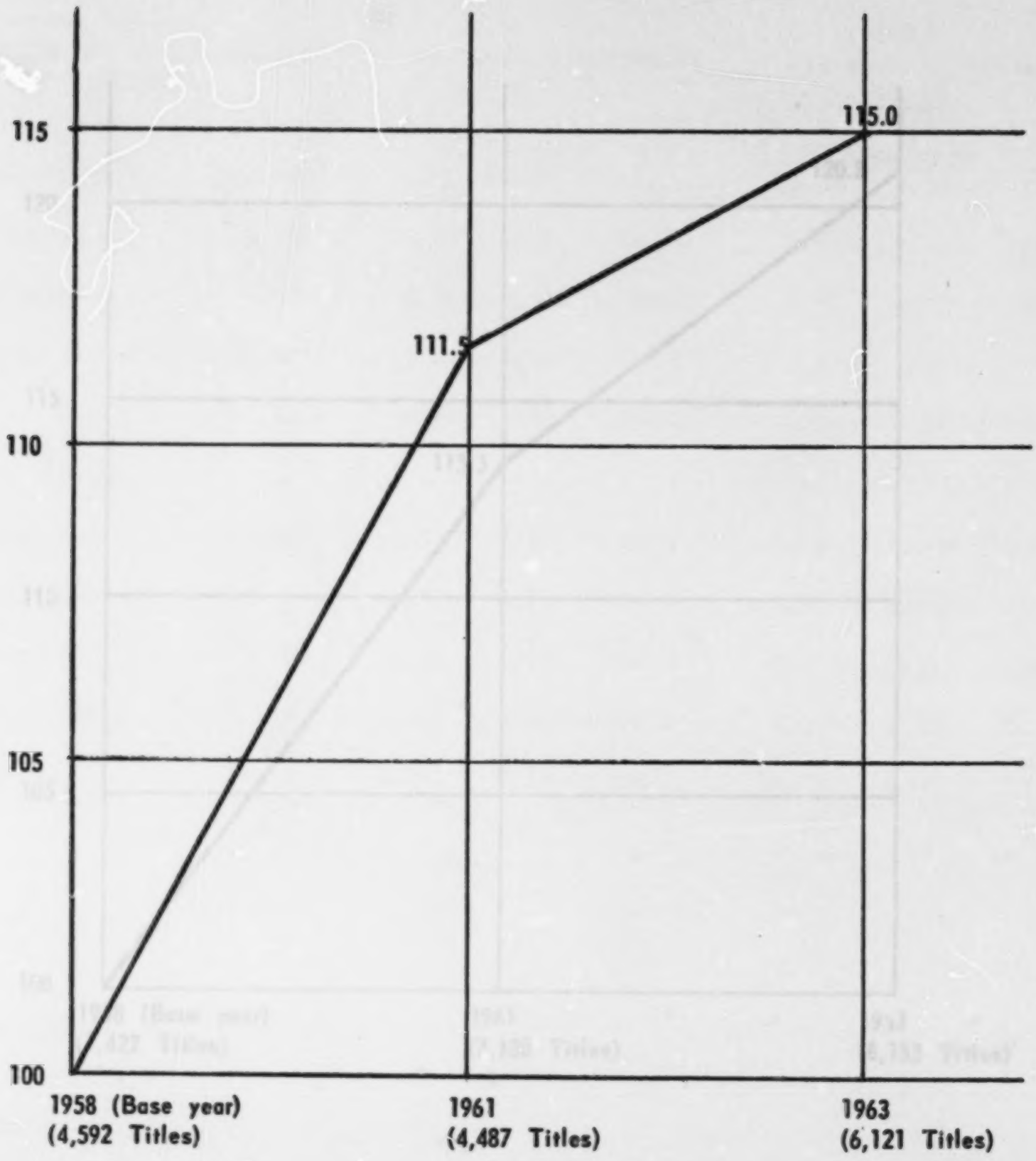


Figure 2

## INDEX OF SCHOOL TEXTBOOK PRICES

(Average prices based on 10 subject classes)

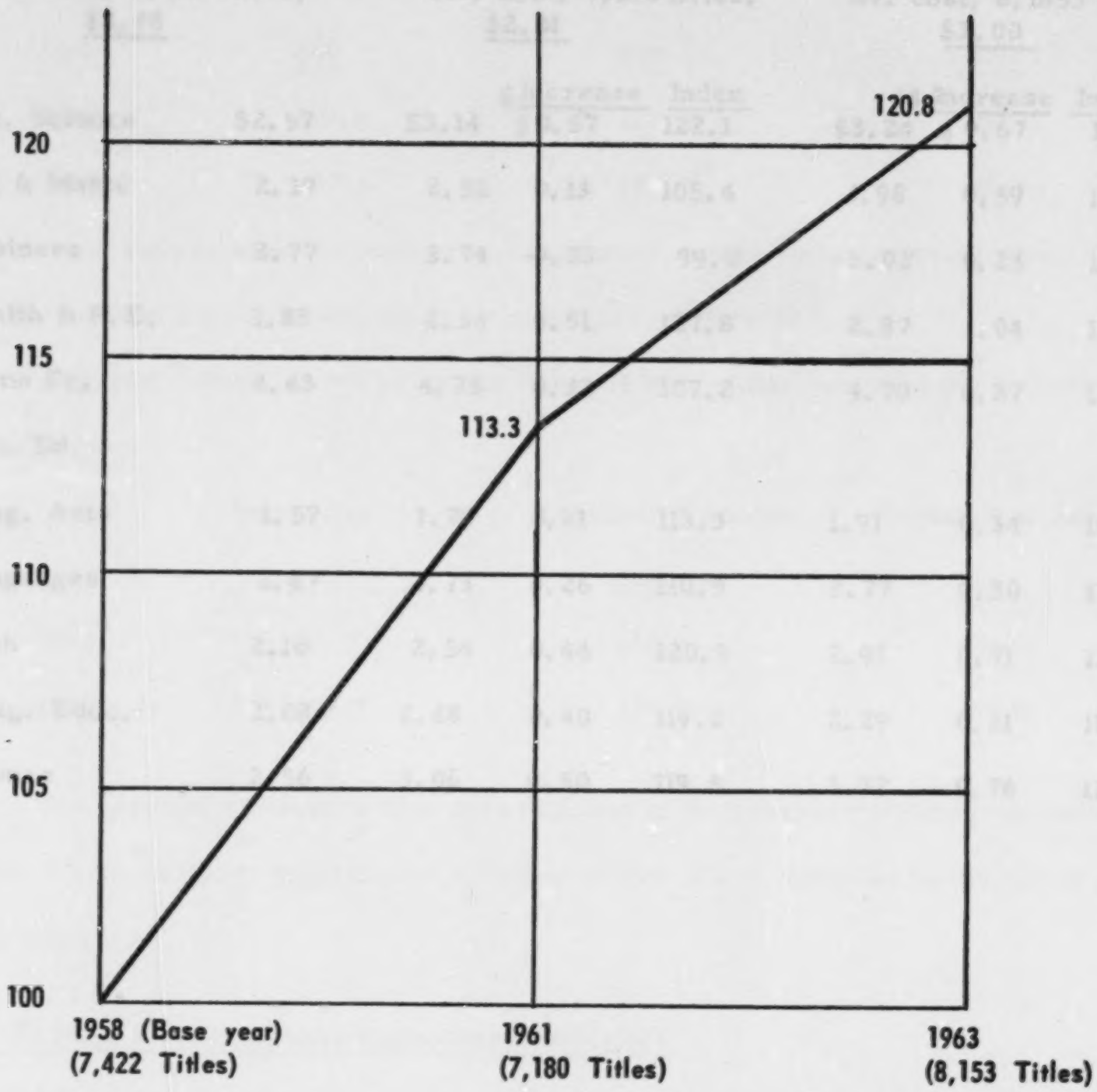


Table 1

Index and Costs of School Textbook Prices, Subject Fields, K-12

| | Base Year 1958 | 1961 | | | 1963 | | |
|---|---|---|---|---|---|---|---|
| | 100 | 11.33 | | | 120.8 | | |
| | Av. cost, 7,422 titles, $2.48 | Av. cost, 7,180 titles, $2.81 | | | Av. cost, 8,1853 titles, $3.00 | | |
| | | | $ Increase | Index | | $ Increase | Index |
| Soc. Science | $2.57 | $3.14 | $ 0.57 | 122.1 | $3.24 | $ 0.67 | 126 |
| Art & Music | 2.39 | 2.52 | 0.13 | 105.4 | 2.98 | 0.59 | 124.6 |
| Business | 2.77 | 2.74 | -0.03 | 99.0 | 3.02 | 0.25 | 109.0 |
| Health & P.E. | 1.83 | 2.34 | 0.51 | 127.8 | 2.87 | 1.04 | 156.7 |
| Home Ec. | 4.43 | 4.75 | 0.32 | 107.2 | 4.70 | 0.27 | 106.0 |
| Voc. Ed. | | | | | | | |
| Lang. Arts | 1.57 | 1.78 | 0.21 | 113.3 | 1.91 | 0.34 | 121.6 |
| Languages | 2.47 | 2.73 | 0.26 | 110.5 | 2.77 | 0.30 | 121.1 |
| Math | 2.10 | 2.54 | 0.44 | 120.9 | 2.91 | 0.71 | 133.8 |
| Relig. Educ. | 2.08 | 2.48 | 0.40 | 119.2 | 2.29 | 0.21 | 110 |
| Science | 2.56 | 3.06 | 0.50 | 119.5 | 3.32 | 0.76 | 125.8 |

Figure 3 illustrates graphically these price changes in the ten subject areas for the periods covered.

Two additional compilations for textbooks and related materials provide some interesting comparisons. The first of these, shown in Figure 4, relates the costs of textbooks by school level. The same price data provide the following index:

| | Elem. School | Junior High Sch. | Senior High Sch. |
|---|---|---|---|
| 1958 | 100 | 100 | 100 |
| 1961 | 116.0 | 122.2 | 107.7 |
| 1963 | 127.5 | 125.7 | 112.6 |

The lowest rise is seen for high school textbooks, while the other two school levels indicate higher index values over the period surveyed.

Figure 5, which shows prices by form of materials, provides the following index values:

| | Textbooks | Teachers Editions | Workbooks, Manuals |
|---|---|---|---|
| 1958 | 100 | 100 | 100 |
| 1961 | 111.5 | 134.3 | 120.4 |
| 1963 | 115.0 | 175.0 | 138.0 |

The largest increase in this data is found in the teachers editions classifications, which show the highest rise of index values of any material in the entire data analysis.

## 2. College level textbooks and related materials

The index of prices for college level textbooks and related materials provides another element in the total picture of textbook prices. For textbooks only,

## COST CHANGES OF SCHOOL TEXTBOOKS, BY SUBJECT AREAS (Figure 3)

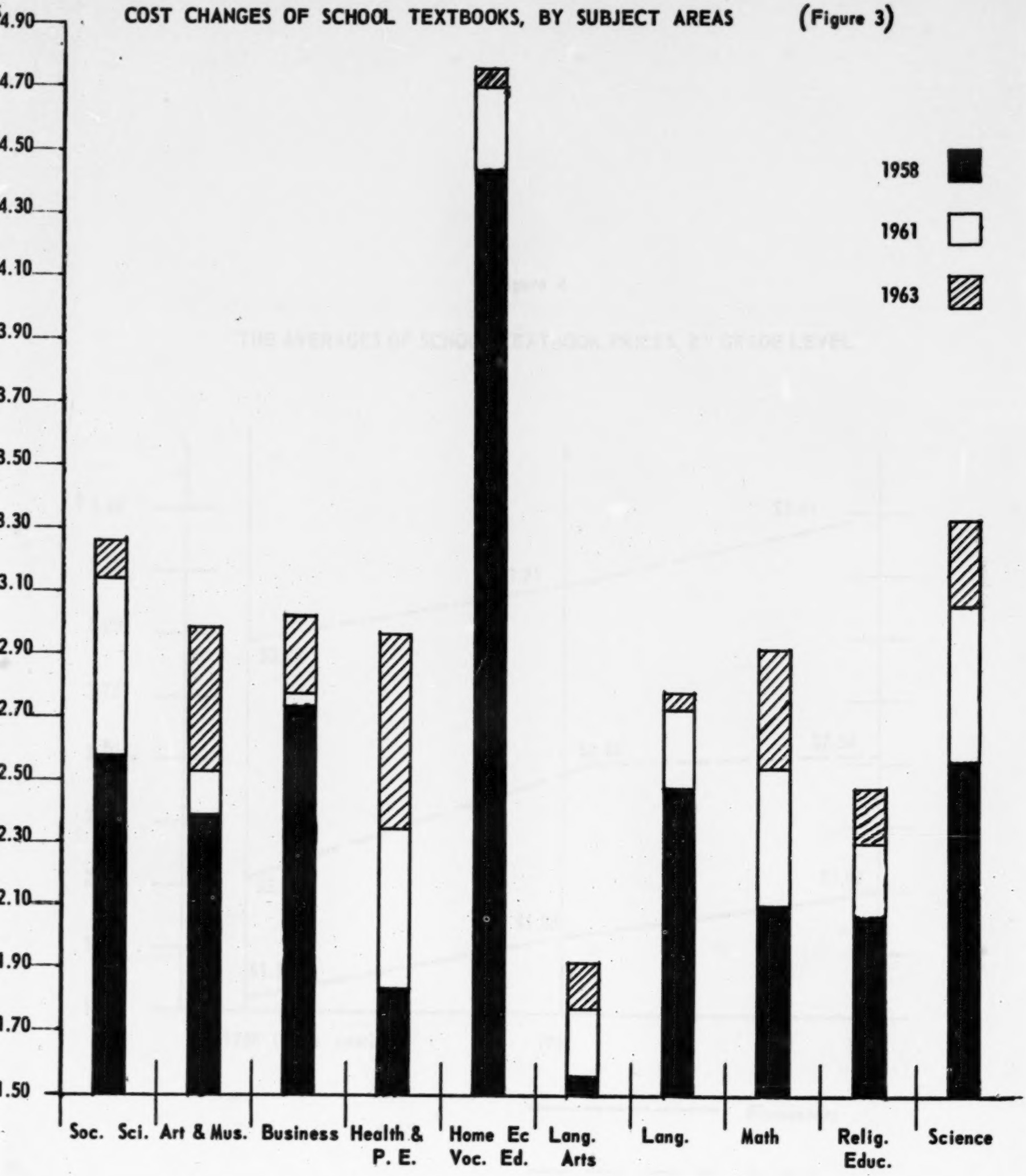


**Figure 4**

**THE AVERAGES OF SCHOOL TEXTBOOK PRICES, BY GRADE LEVEL**

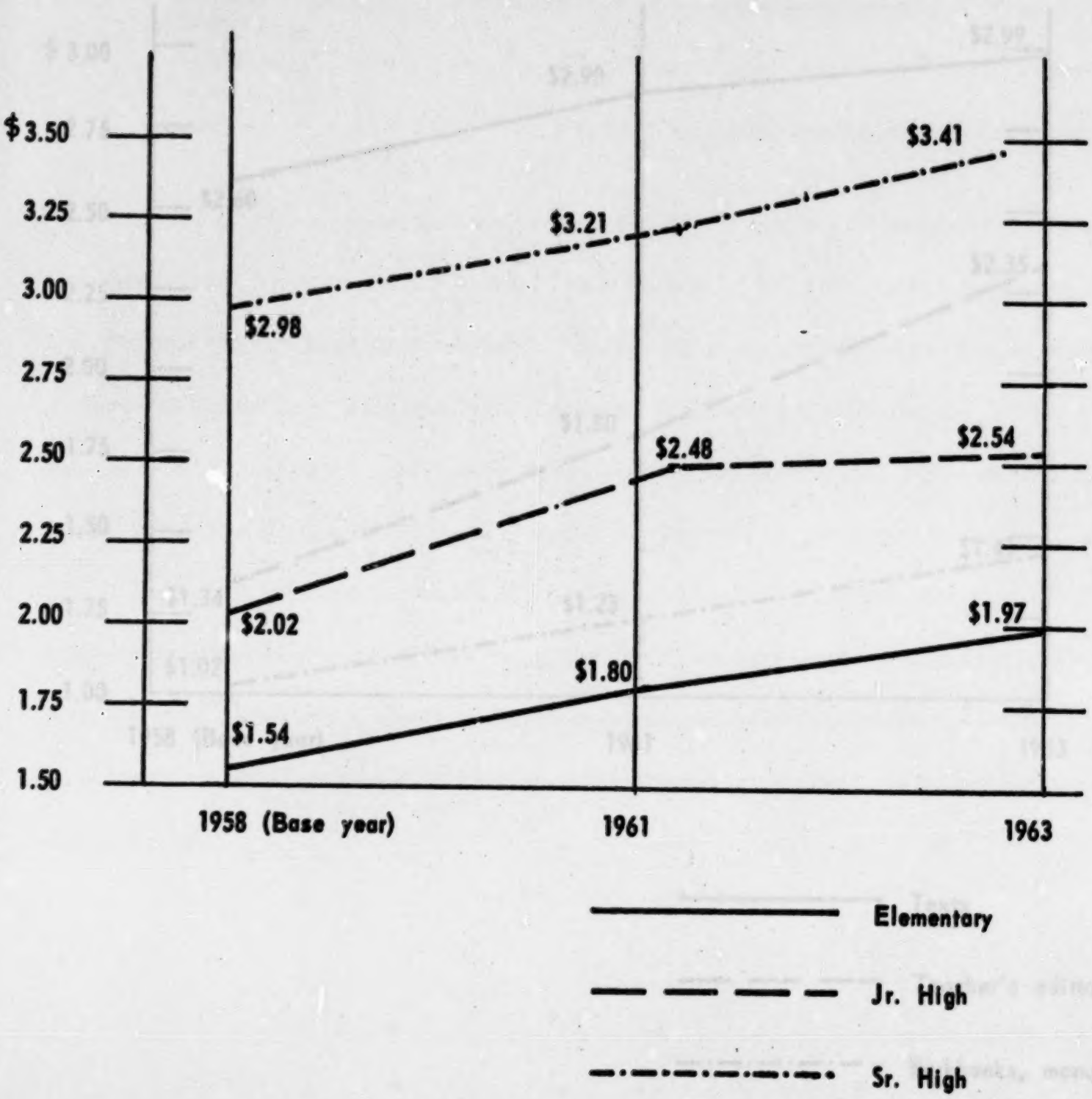
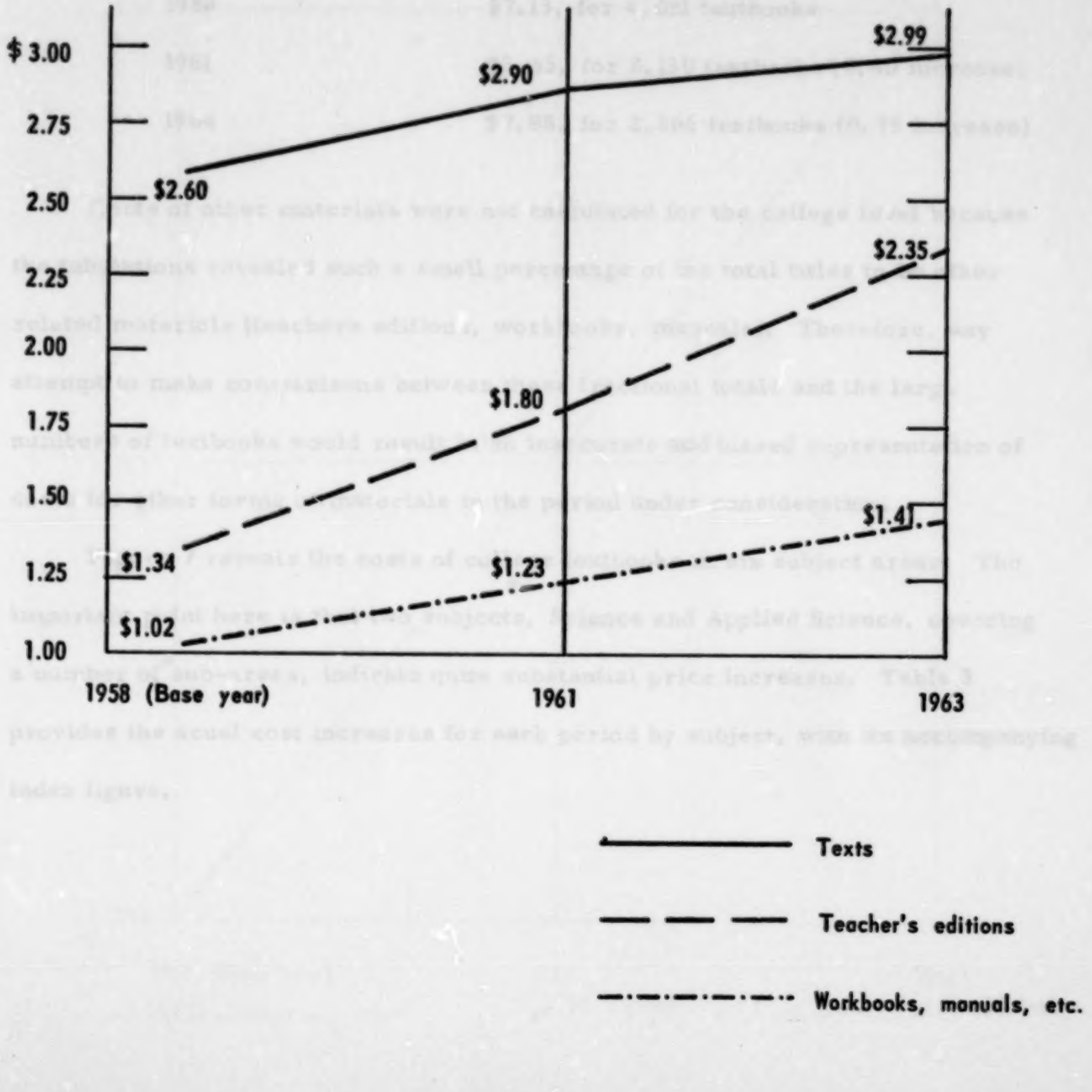


**Figure 5**

**THE AVERAGES OF SCHOOL PRICES, SCHOOL TEXTS, AND OTHER MATERIALS**



the index indicates a rise of 5.5 points between 1961-1958, and 5 points between 1964-1961. Figure 6 illustrates this rise. The actual dollar costs involved are as follows:

Table 2

Average Dollar Costs, College Textbooks

| | |
|---|---|
| 1958 | $7.13, for 4,051 textbooks |
| 1961 | $7,53, for 2.130 textbooks (0.40 increase) |
| 1964 | $7.88, for 2,866 textbooks (0.75 increase) |

Costs of other materials were not calculated for the college level because the tabulations revealed such a small percentage of the total titles to be other related materials (teachers editions, workbooks, manuals). Therefore, any attempt to make comparisons between these fractional totals and the large numbers of textbooks would result in an inaccurate and biased representation of costs for other forms of materials in the period under consideration.

Figure 7 reveals the costs of college textbooks in six subject areas. The important point here is that two subjects, Science and Applied Science, covering a number of sub-areas, indicate quite substantial price increases. Table 3 provides the acual cost increases for each period by subject, with its accompanying index figure.

Figure 6

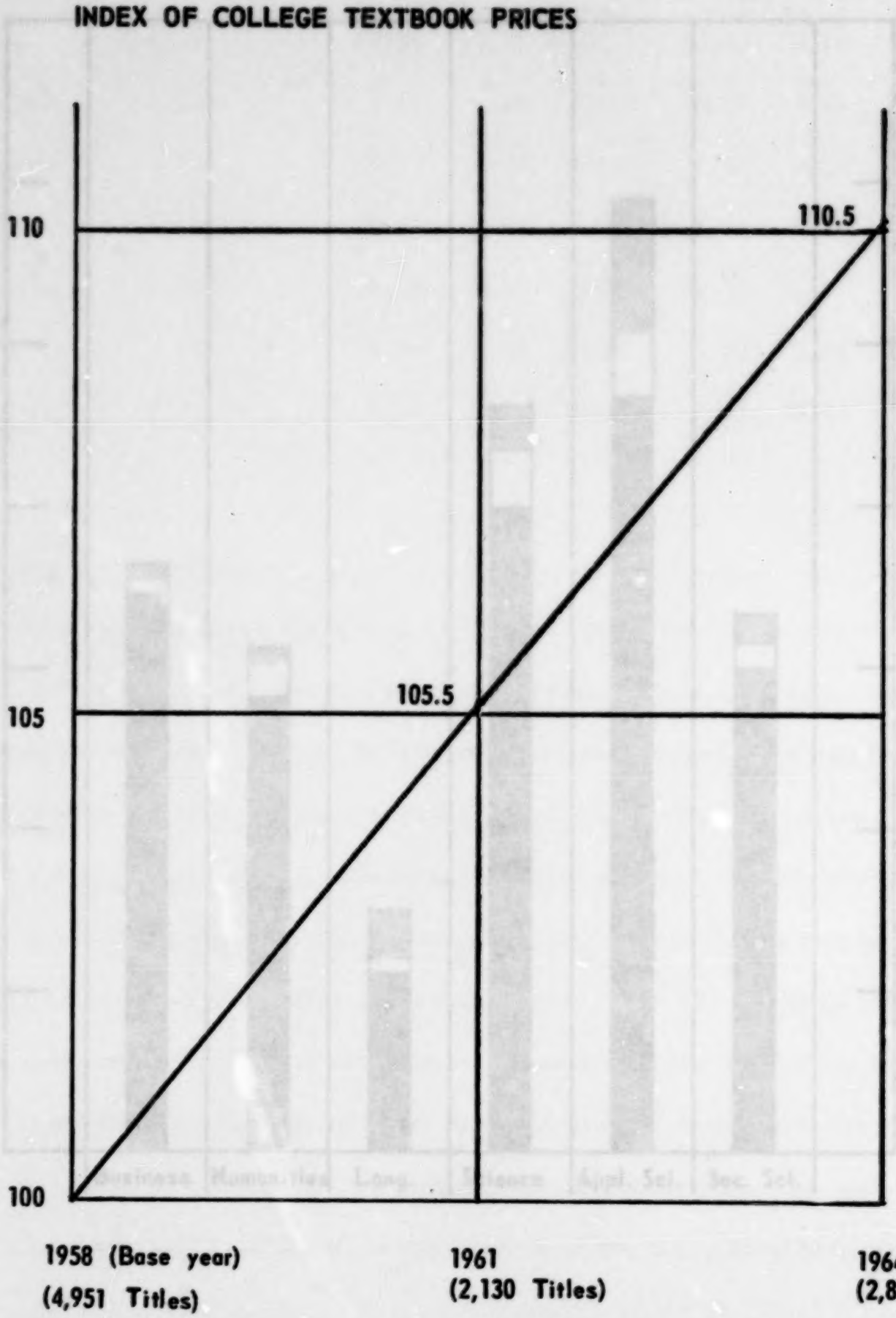

INDEX OF COLLEGE TEXTBOOK PRICES
110
110.5
105.5
105
100
1958 (Base year)
(4,951 Titles)
1961
(2,130 Titles)
1964
(2,866 Titles)

Figure 7

## COST CHANGES OF COLLEGE TEXTBOOKS, BY SUBJECT AREAS

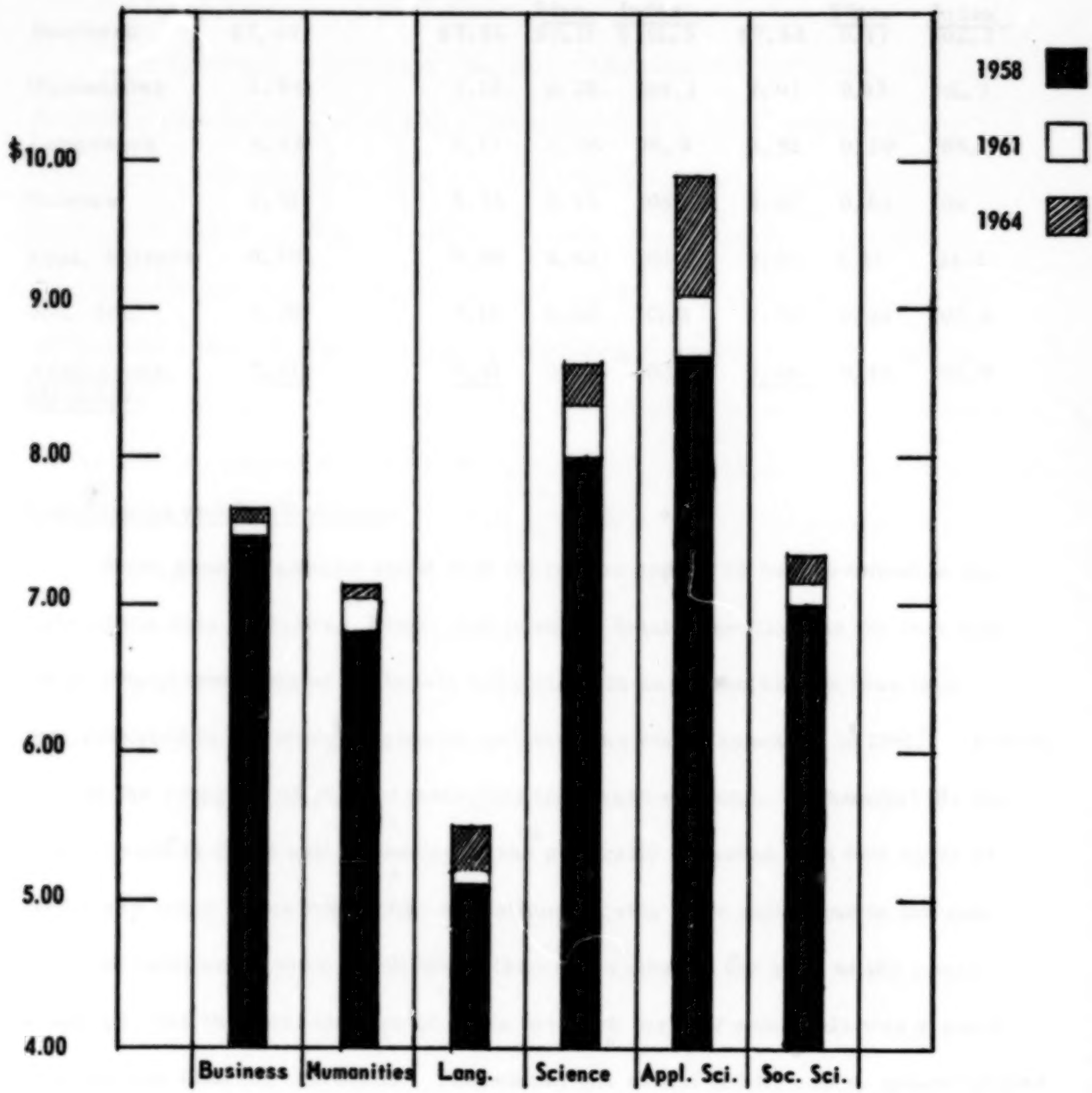


Table 3

Index and Costs, College Textbooks, by Subject Areas

| | 1958 Base year, 4,051 titles total | 1961 2,130 titles total | | | 1964 2,866 titles total | | |
|---|---|---|---|---|---|---|---|
| | | | $Inc. | Index | | $Inc. | Index |
| Business | $7.45 | $7.56 | $0.11 | $101.5 | $7.62 | 0.17 | 102.3 |
| Humanities | 6.84 | 7.12 | 0.28 | 104.1 | 7.03 | 0.13 | 101.9 |
| Languages | 5.22 | 5.17 | -.05 | 96.0 | 5.52 | 0.30 | 105.7 |
| Science | 8.01 | 8.36 | 0.35 | 104.7 | 8.65 | 0.64 | 108 |
| Appl. Science | 8.69 | 9.09 | 0.40 | 104.9 | 9.82 | 1.13 | 114.1 |
| Soc. Sci. | 7.08 | 7.16 | 0.08 | 101.3 | 7.32 | 0.24 | 103.4 |
| Aver. costs, all subjs. | 7.21 | 7.41 | 0.20 | 102.8 | 7.66 | 0.45 | 105.9 |

Conclusions and Implications

Some generalizations about cost increases appear to be warranted in the light of the data analyses. First, and perhaps most important, is the fact that while school textbooks at all levels have risen in cost, the rise is less than that revealed in the study of general publications which appeared in 1961.* Indeed, only in the category of related materials (teachers editions, workbooks) for the school level is there any reflection of the generally accepted idea that costs of books has risen apace with other educational costs. The unit costs in the non-textbook categories were much lower than for textbooks for each of the years analyzed, and the total number of titles for each form of materials was a much smaller one than for textbooks. Therefore, the actual dollar costs, either totaled or by item, represent a smaller overall portion of the price structure, even

*Cost of Library Materials, 1961

though the comparative index ia a much higher one for non-textbook materials. The costs of school materials, in total is a result of how many textbooks at a higher per unit cost are purchased in relation to how many other forms are purchased at a lower per unit cost.

It is important to note also, for both school and college levels, that the presently emphasized and rapidly growing fields of science, social science, mathamtics, and applied science represent those subject areas which reflect the highest rise in prices. At the K - 12 level, home economics and vocational education (as one subject area) showed the highest item cost, even though the index value rise was slight. A partial explanation for this variance might be that the subject, as defined in the guide used, actually embraces a wide content area requiring special materials of a costly type. A parallel situation does exist with respect to college level applied science textbooks, which were the highest in unit costs of all college subjects.

It was noted in an earlier section of the report that considerable difficulty was encountered in finding suitably complete tools on which to base the data collection. The cost data derived, therefore, are subject to the question of whether or not they represent an adequate statistical portion of all texts in print. That is, there is no doubt that this study deals only with a portion - a large one, it is assumed - of the total universe of textbooks in print, rather than the entire universe itself. It appears impossible, within reasonable limits, to conduct a study which will guarantee coverage of all books available at any one time.

The problem of complete coverage exists mainly because of the lack of complete bibliographic tools on textbook production. Partially this sutiation results from the lack of a precise and standard definition of a textbook; indeed,

the varied activities in modern educational practice which require the use of print make such a definition difficult.* Partially, also, the difficulty of obtaining from publishers the full and uniform listing of their output places such a study as this in the unenviable position of having to cross-check many hundreds of items to ascertain their level, type, and subject area.

The collection and interpretation of college level textbook data are subject particularly to both criticism and limitation of the source of such data. For this study a single tool, obviously incomplete and compiled for an entirely different purpose, was found to be the only available instrument which could supply necessary facts without an exhaustive and overly-involved search through normal bibliographic resources. The fact that, for the three years used in the study, the total number of textbooks varies considerably - 4,051 in 1958, 2,130 in 1961, 2,866 in 1964 - may well be a reflection of the current availability of textbook titles as stocked (hence in demand) rather than any attempt to be comprehensive in its listing.

From the standpoint of costs of materials in education, textbooks represent a different situation as to costs for colleges than for public schools. Academic budgets generally do not reflect such costs since textbooks are not institutional supply responsibilities; yet the costs of textbooks is an important element in total college education costs. Perhaps those institutions which furnish textbooks on rental or other cooperative plans will be the only ones concerned with this cost data; however, it is hoped that such price indexes can help reflect educational costs, individual or institutional, more adequately than can any total cost data with-

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*Textbooks were defined for the purpose of this study was:

A book designated by a publisher or an author to be used by a student or a teacher "as the basis for regular classroom instruction." (Funk & Wagnalls Dictionary)

out these figures.

Since the guide for school textbooks, Textbooks in Print, listed all publishers which had contributed information, it was relatively easy to establish a code number for the total number of publishers. For the college level, however, such a listing did not appear, and it was thought useful to compute the number of publishers and the number of titles per publisher which appeared in the Buy Back Book. The total number of publishers contributing information about college textbooks was 197. The range of total titles by publisher was from 2 - 1,309. Seven publishers contributed more than half the combined three-year total of 9,047 titles, since their combined lists amounted to 5,180 titles. While titles for the college level were verified when any doubt existed as to either subject classificationor if the title was not clearly defined, it is entirely possible that this study missed many titles available from a different source or in a different form. The total universe of 9.047 titles contained in the guide, however, even when it covers six years, appeared to be large enough to provide a reasonably useful statistical base.

Since the index was established on a three element (three year) basis, it is hoped that it can be continued so as to furnish the basis for a predictive tool of value to educators. Projection of costs by subjects and by school level could be easily made if the present study has pointed out useful arrays of data. An effort should be made to obtain the most complete listing possible from all the publishers concerned, at both school and college levels, so that future cost data analysis will represent an even higher percent of the total universe of textbooks. Certainly, with the number of subjects to be covered, the huge increase in student

enrollment which has been forecast, and the growth of educational budgets, no single element in the total textbook publishing industry need fear either undesirable revelation of costs or unfair advantage at being included in such a study. On the other hand, educators will benefit, as will students at all levels, by being able to better project cost figures for vital materials; and the best projection will be that which is based on the most complete and up-to-date information.

Appendix 1. Bibliography.

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1959 (1958 data); 1962 (1961 data)
1964 (1963 data)

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Nebraska, Nebraska Book Company, 1964.